

Remarks/Arguments

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Amendments to the Specification

10 The second paragraph of the "Detailed Description
of the Preferred Embodiment" section of the present
application has been amended to correct a
typographical error concerning the element numbers
for the feeding terminal as shown in Fig.4. In two
locations, the element number has been changed from
56 to 54 as previously identified in the same
15 paragraph. No new material has been introduced.

Claim Rejections

Examiner:

20 Claims 1-8 are rejected under 35 U.S.C. 102(e) as being
anticipated by Ikegaya et al. (U.S. Patent No. 6,600,448).

25 The Ikegaya et al. reference teaches in figure 2 a
monopole antenna for a wireless device, the antenna
comprising a conductor plate having a first plate portion
6 and a second plate portion 3, the first plate portion
6 having a width between a first edge and a second edge
thereof and a height for producing a first resonance band
and a second resonance band, the second plate portion 3
being connected to the first edge of the first plate portion
30 for feeding signals of the first resonance band and the
second resonance band, the first plate portion producing
the first resonance band corresponding to the length from

the first edge to the second edge thereof, and producing the second resonance band corresponding to the length from the first edge to the second edge and back to the first edge. The second plate portion is L-shaped. The first plate
5 portion is rectangular.

Response:

Independent claims 1, 3, and 7 have been amended to
10 include the limitation of the second resonance band
corresponding to the length from the first edge to the second
edge and back to the first edge plus a portion of the height.
This limitation is clearly supported by Fig.2 and the 4th
paragraph of the "Detailed Description of the Preferred
15 Embodiment of the present application. No new material has
been introduced.

The Applicant believes that the present invention as
claimed differs from that of Ikegaya et al. for at least
20 the following reasons.

The cited reference discloses a single band, flat plate
antenna having a radiating element 3 (Figs.1, 2) and a
grounding element 4 with a slit of a specified width formed
25 between them. The length of the radiating element 3 is
substantially a multiple of a quarter of a wavelength
attained at the operating frequency of the antenna by an
odd-numbered value (Abstract).

Therefore, the disclosure of Ikegaya et al. teaches
30 an antenna that transmits or receives a single frequency
band according to the length of the radiating element 3.

On the other hand, the present invention discloses a dual band monopole antenna that uses a single first (preferably substantially rectangular) conductor plate. When fed radio frequencies via a relocated feeding terminal (item 54, Fig. 4) on the second conductor, the first conductor plate can effectively resonate at two predetermined, non-overlapping frequency bands L1 and L2 (Fig. 5) whose paths are clearly depicted in Fig. 4. The prior art does not teach this. Those skilled in the art are well aware that the positions of the feeding terminals and grounding elements are important considerations in the design of an antenna.

The present invention antenna becomes suitable for GSM 900, 1800, and 1900 systems by restricting the area of the first conductor plate. By increasing the area of the second conductor plate, the second EM resonance band L2 can be increased to be larger than the frequency difference between the second resonance band L2 and a third resonant frequency F3 within the GSM 1900 band (5th paragraph of the "Detailed Description of the Preferred Embodiment").

Therefore, the present invention teaches an antenna that transmits or receives multiple predetermined frequencies according to restrictions placed on the area of the first conductive plate. The path lengths defined for the first resonance band and the second resonance band as claimed point out these restrictions.

As such, the Applicant believes that the present invention as claimed is structurally and functional

different than that of the cited prior art and respectfully
requests reconsideration of claims 1-8.

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Sincerely,

10 Winston Hsu

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Winston Hsu, Patent Agent No. 41,526

P.O. BOX 506

Merrifield, VA 22116

U.S.A.

15 e-mail : winstonhsu@naipo.com.tw

(Please contact me by e-mail if you need a telephone
communication and I will return your call promptly.)